

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad**III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, MAY - 2019**Subject: Compiler DesignBranch: **Common to CSE &IT****Time: 3 hours****Max. Marks: 75****PART – A****I.** Answer **ALL** questions of the following**5x1Mark=5 Marks**

1. Distinguish between Interpreter and Compiler?
2. Write the stands for YACC
3. Write the types of LR parsers.
4. List the methods of Loop optimization?
5. What is the significance of Code Generator in Compiler Design?

II. Answer **ALL** questions of the following**10x2Marks=20 Marks**

1. Briefly explain the problems with Top down Parsing?
2. Explain the lexical analyzer.
3. What is left most derivation and rightmost derivation?
4. Define bottom up parsing and handle.
5. What is the role of Type checker?
6. Construct abstract syntax tree.
7. Write a short notes on Data Flow properties?
8. What is an induction variable? Give an example.
9. Describe the Object Code forms?
10. Write different object code forms.

PART-BAnswer **ALL** questions of the following**5x10 Marks= 50Marks**

1. Consider the following grammar

 $E \rightarrow T + E / T$ $T \rightarrow V * T / V$ $V \rightarrow id$

Write down procedures for non terminals of the grammar to make a Recursive Descent parser?

OR

2. a. Explain analysis and synthesis model of compilation.
b. Write short notes on input buffering.
3. Construct LALR parsing table for the following grammar

 $S \rightarrow L = R | R$ $L \rightarrow * R | id$ $R \rightarrow L$ **OR**

4. Construct Operator Precedence parser for the grammar

 $S \rightarrow iEtS/iEtSeS/a$ $E \rightarrow b/c/d$ where a,b,c,d,e,i,t are terminals

5. Write the Quadruple, Triple, Indirect Triple for the statement $a := b^+ - c + b^+ - c$

OR

6. Write notes on a) Abstract syntax Tree b) Polish Notation
7. Explain how following expression can be converted in a DAG $a + b^*(a + b) + c + d$

OR

8. What is flow graph and explain about the global data flow analysis.
9. Explain the Register allocation and Assignment in detail?

OR

10. Describe in detail about the concept of DAG for register allocation with an appropriate example.

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III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, MAY - 2019

Subject: **Computer Communication**

Branch: **Common to CSE &IT**

Time: 3 hours

Max. Marks: 75

PART – A

I. Answer **ALL** questions of the following

5x1Mark=5 Marks

1. What are the two interfaces provided by protocols?
2. List various steps followed in checksum generation.
3. What are the three pieces of information in the configuration of messages?
4. Explain about Segmentation.
5. What is the need of cryptography in the computer networks?

II. Answer **ALL** questions of the following

10x2Marks=20 Marks

1. What are the features provided by layering?
2. What are the different transmission media?
3. What is the purpose of hamming code?
4. Write about IEEE802.3 briefly.
5. Explain Bridge.
6. Where do we get the Congestion?
7. What are the advantages of UDP over TCP?
8. Give main idea of UDP.
9. What are the Network managements?
10. How is secret key different from public key?

PART-B

Answer **ALL** questions of the following

5x10 Marks= 50Marks

1. Explain the terms: crossbar switch, packet switch and banyan switch.

OR

2. Discuss about ISO/OSI reference model with neat Diagram.
3. Explain in detail about Point to Point Protocols (PPP)?

OR

4. a) Explain the sliding window protocol with a neat sketch.
b) Explain the design issues of data link layer.
5. How is subnet mask useful in IP addressing? Explain with an illustration.

OR

6. a) What is tunneling? When it is used? Is it used in wireless LAN's?
b) Discuss about Internet work Routing.
7. Draw the TCP header format and explain the function of each field?

[3+2+1]

[4]

OR

8. Discuss about User Data Gram Protocol (UDP)?
9. Write a brief note on the following: DNS, HTTP and FTP.

OR

10. List and discuss the types of DNS records?